

# Where has the new information gone? The Chinese case\*

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## 0. Introduction

In this paper I would like to show that the principles which have been proposed so far to account for the relationship between the informational level and the syntactic level in a Chinese utterance are unable to predict some interesting and regular facts of that language.

To my mind, the form and the position of the question operator in an interrogative utterance provide two distributional tests which univocally indicate where the new information lies. Hence, the pairing of affirmative and interrogative sentences might be a better approach to locate where the new information lies in a Chinese utterance.

## 1. Previous analyses

Functional as well as formal analyses have offered principles which try to relate the scope of operators, such as negation or question – hence the domain of new information – to the (surface) syntactic level.

### 1.1. The functional paradigm

Functional linguists have associated one of the general typological characteristics of Chinese, i.e. topic prominence, with iconic properties of word order. In such a perspective, the direction of word order, that is from left to right, is directly correlated with the position of old and new information. Old information stands in preverbal position, whereas new information stands in postverbal position (see Tai (1989), Tsao (1990), among others). Consequently, there is scope transparency and the absence of what is called 'negative transportation' in English is predicted for Chinese.

In English, it is well known that the negative marker modifies the matrix verb in (01), but that its scope may be on the subordinate verb, so that (01) can be paraphrased as (02).

(01) I don't think he will be here today

(02) I think he won't be here today

If negative transportation does not exist in Chinese, we can immediately predict the difference in grammaticality between (03) and (04). (03), which is built on the same pattern as (01) is ill-formed.

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The abbreviations used here are:  
Cl. : Classifier, F.P. : Final Particle; Inter. : Interrogation; Neg.: Negation; Suf.: Suffix.

(03) \*wo **bu** xiang ta jintian hui lai le  
 I Neg. think he today can come F.P.  
 I don't think he will come today

(04) wo xiang ta jintian **bu** hui lai le  
 I think he today Neg. can come F.P.  
 I don't think he will come today

Such a phenomenon is attested in complement clauses as well as in adverbial clauses. Thus the ambiguity found in the English example (05) does not arise.

(05) I did **not** go because I was scared  
 (05a) I did not go, because I was scared  
 (05b) I went, (but) not because I was scared

(06) below corresponds to interpretation (05a), while (07) corresponds to (05b).

(06) wo **mei** qu, yinwei wo haipa  
 I Neg. go because I afraid  
 I did not go, because I was scared

(07) wo qu-le, (dan bing) **bu shi** yinwei haipa  
 I go-Suf. (but and) Neg. be because afraid  
 I went, (but it was) not because I was afraid

## 1.2. The formal paradigm

### 1.2.1. Simple sentences

Contrary to functional linguists, formal linguists posit an abstract level, called LF (Logical Form), where meaning is computed. In that vein of research, Ernst (1994 : 245) – among others<sup>1</sup> – posits the isomorphic principle (IsoP), which accounts for the un-grammaticality of (08) as opposed to the grammaticality of (09)<sup>2</sup>. This principle reads as follows: "If an operator A has scope over B at SS, then A has scope over B at LF".

(08) \*ta yiding **qu bu qu**?  
 he definitely go-Neg.-go

(09) ta **shi bu shi** yiding qu?  
 he be-Neg.-be definitely go  
 is he definitely going?

The ungrammaticality of (08) "can be accounted for by assuming that the A-Not-A form [+Qu] raises to Comp at LF and that any adjunct which c-commands [+Qu] at SS must also raise to c-command it at LF...If the adverb is incompatible with scope over [+Qu], as most core adjuncts are, the result will be ruled out." (*ibid.*: 260). As the reader can see, first, if the ungrammaticality of (08) finds a mechanic description, nothing is said about the fact that the question needs to be marked with *shi bu shi* 'is it (the case) that ... ?'. Second, how can the difference between (08) and (10) be accounted for, except from stating the following tautology: *yiding* 'definitely' is

<sup>1</sup> See also Huang (1982) or Aoun and Li (1989).

<sup>2</sup> (8) and (9) are numbered (9b) and (12a) in Ernst (1994).

marked as incompatible with question marking on the verb, hence the ungrammaticality of (08), while *jiujing* 'finally' is marked as compatible, hence the grammaticality of (10)?

- (10) ta jiujiing **qu bu qu**?  
 he finally go-Neg.-go  
 finally, is he going?

How can the ill-formedness of (08) be related to the well-formedness of (10)? Moreover, although the adjuncts *jiujing* 'finally' and *zhongyu* 'finally' share some semantic properties, why do (10) and (11) differ in grammaticality?

- (11) \*ta zhongyu **lai bu lai**?  
 he finally come-Neg.-come

### 1.2.2. Complex sentences

As far as complex sentences are concerned and in order to capture the so-called 'topic prominence' of the Chinese language, Gasde and Paul (1996) introduce a functional projection called 'Topic Phrase', which can be occupied by two types of subordinate clauses. Generating adjunct clauses in the specifier position of a Topic Phrase automatically provides them with the surface order subordinate + matrix clause. In their perspective, both conditional and causal clauses, as illustrated in (12) and (13)<sup>3</sup>, occupy to the same position. "To generate adjunct clauses in the specifier position of TopP allows us to automatically derive the rigid word order "adjunct clause - main clause" observed in complex sentences with causal and conditional clauses" (*ibid.*: 285).

- (12) ruguo ni yao mai fangzi (de hua) wo jiu jiegei ni qian  
 if you want buy house (if) I *jiu* lend you money  
 if you want to buy a house, I will lend you some money
- (13) yinwei ta pingshi zhuyi duanlian, suoyi shenti yizhi hen hao  
 because he usually mind exercise therefore body always very good  
 because he does sports regularly, he is in excellent health

### 1.3. Problems

From what I have somewhat sketchily presented above, one could gather the impression that Chinese is somehow more 'regular' or more iconic than English. Chinese would evidence only direct scope<sup>4</sup> – as in (03)-(04) – while informational properties (topic prominence) would be correlated to surface order properties (adjunct preceding main clause) – as in (12)-(13).

#### 1.3.1. The existence of inverse scope

Example (14) shows that, apart from direct scope, inverse scope also exists in Chinese.

- (14) ta **jiu neng** he yi bei jiu  
 he only can drink one Cl. alcohol  
 he can only drink one glass of wine

<sup>3</sup> (10) corresponds to (20b) and (11) to (21a) in Gasde and Paul's paper.

<sup>4</sup> See Huang (1981) for the one-to-one correspondence between word order and the scopal properties of quantifiers.

If (15) were to follow direct scope assignment, the modal verb *neng* 'can', which has wider scope than the focus adverb *jiu*<sup>5</sup>, should precede it. Hence (15) is predicted to be well-formed, but it is not.

- (15) \**ta neng jiu he yi bei jiu*<sup>6</sup>  
 he can only drink one Cl. alcohol

Hence inverse scope<sup>7</sup> does exist in Chinese. Using different syntactic patterns and the cooccurrence between different types of quantifiers in subject and in object positions, Lee, Yip and Wang (1999) have demonstrated that inverse scope in Chinese is influenced by the lexical properties of quantifiers<sup>8</sup> and by the thematic roles played by objects. Thus, for instance, inverse scope is more readily available to goal/location objects, especially when quantified by *mei* + Classifier 'every' than they are to theme objects, especially when such objects are quantified by *suoyoude* 'all'. Thus, (16), where the object *suoyoude ge* 'all the songs' is a theme, shows no inverse scope effect, while inverse scope is possible for (17). In (17), the object *mei ge wuding* 'every roof' is locative.

- (16) *zai zhei ci yinyuehui-shang, you liang ge gexing chang-le suoyoude ge*  
 at this Cl. concert-on have two Cl. star sing-Suf. all song  
 at this concert, two singers sang all the songs  
 (*liang ge* > *suoyoude*)
- (17) *zai na tiao jie, you liang ge qiqiu piao-guo-le mei ge wuding*  
 at that Cl. street have two Cl. balloon float-Suf.-Suf. each Cl. rooftop  
 on that street two balloons floated to every roof  
 (*mei ge* > *liang ge*; *liang ge* > *mei ge*)

### 1.3.2. The existence of different types of adjunct clauses

That Gasde and Paul's analysis fails to account for many distributional facts which differentiate conditional clauses from causal ones has been convincingly argued for by Tsai (1995a, 1995b). She uses eight tests (deletion of the subject of the matrix clause, topicalisation, embedding in tensed clauses, relative clause formation, focussing, constituent questioning in the matrix clause, the scope of the *shi-bu-shi* operator and anaphoric pronominalization in the matrix

<sup>5</sup> Note that when it is interpreted as a restrictive/focus adverb as in (12) *jiu* takes scope on the right on the quantified object. When it indicates a causal/consequential/anaphoric relation it takes scope on the left (see II below). To my knowledge, such a difference together with its ensuing consequences has gone unnoticed in the literature.

<sup>6</sup> In an interrogative pattern though, the expected scope is found, as in (i), where *neng* 'can' precedes *jiu*.

(i) *ta neng bu neng jiu he yi bei jiu?*  
 he can-Neg.-can only boire un Cl. alcohol  
 can he drink only one glass of wine?

(i) corroborates what I say about the basicness of interrogative word order in Chinese in § III.

<sup>7</sup> "An expression *a* has inverse scope over an expression *b* iff *b* is in the semantic scope of *a* but *a* does not c-command *b* at S structure", De Swart (1998). See also Buring (1997). (i) below is acceptable because the negation marker has inverse scope on the negative polarity item. Its semantic scope is wider than its syntactic scope. Inverse scope is felicitous if the wide scope interpretation of negation entails a positive statement, or pragmatically carries a positive implicature.

(i) [a doctor who knew *anything* about acupuncture] was not available

<sup>8</sup> In order to account for quantifier scope interpretations, Kuno *et al.* (1999) propose an expert system which takes into consideration both syntactic and non syntactic principles. One of these principles reads as follows: a syntactically topicalized quantified expression always has wide scope over a syntactically nontopicalized quantified expression".

clause) to prove that conditional clauses and causal clauses present different informational properties. Conditional clauses carry old information, while causal clauses carry new information. As expected, the affirmative/interrogative pair (18)-(19) attested for conditional complex sentences has no causal counterpart, cf. (20)-(21)<sup>9</sup>. The matrix in (19) contains an interrogative pronoun *shei* 'who?' which is the locus of new information; the matrix of (21) cannot, because it is presupposed.

- (18)    ruguo Zhangsan shengbing, Lisi hui qu mai yao  
           if     Zhangsan be ill     Lisi can go buy medicine  
           if Zhangsan falls ill, Lisi will go and buy medicine
- (19)    ruguo Zhangsan shengbing, shei hui qu mai yao?  
           if     Zhangsan be ill     who? can go buy medicine  
           if Zhangsan falls ill, who will go and buy medicine?
- (20)    yinwei Zhangsan shengbing, Lisi hui qu mai yao  
           because Zhangsan be ill     Lisi can go buy medicine  
           because Zhangsan is ill, Lisi will go and buy medicine
- (21)    \*yinwei Zhangsan shengbing, shei hui qu mai yao?  
           because Zhangsan be ill     who? can go buy medicine

In the following, I will study both complex and simple sentences which contain two connectors *jiu* and *cai*. I will try to demonstrate that, in Chinese, there is no one-to-one correspondence between three levels of analysis: the informational level (topic), the tagging level (subordinate clause) and the syntactic level (left to right, subordinate before main clause). In other words, the (automatic) association between the terms of the triplet <topic, subordinate clause, and left position> is ill-grounded.

## 2. The question operator and informational properties

### 2.1. Complex sentences

One of the characteristics of complex sentences in Chinese is that both their subordinate and their main clauses contain markers which hold a tight (semantic) relationship. Subordinators are in construction with a connector<sup>10</sup>, which co-vary according to the logical relationship between clauses. Thus, for instance, the connector of hypothetical clauses (*jiu*) is different from the concessive connectors (*keshi*, *ye*). Within conditional clauses<sup>11</sup>, one can draw a (semantic) distinction between sufficient conditionals containing *jiu* and necessary conditionals containing *cai*. Even though both types of conditional clauses are treated as generated under the same node by Gasde and Paul (1996:271-272), I would like to show that they behave differently when they are questioned. Briefly, I would like to demonstrate that conditionals which are in the scope of *jiu* are presupposed, while conditionals which are in the scope of *cai* are asserted.

<sup>9</sup> (17)-(20) correspond to (18a, b) and (19a,b) in Tsai (1995a).

Le Querler (1993) shows that among subordinate clauses appearing in sentence initial position in French, such as *car p*, *puisque p*, *comme p* or *étant donné que p*, only causal clauses *parce que p* can be clefted. *yinwei* translates as 'parce que'.

<sup>10</sup> For an overview of such a relationship, cf. Paris (1983) and (1984).

<sup>11</sup> Causal and temporal clauses, too.

In (01) below, the interrogation is marked by a sentence final particle *ma*, whose scope is both wide and unclear. Does *ma* bear on the subordinate clause only, on the matrix clause only or on the relation<sup>12</sup> between both clauses?

- (01)    ruguo tianqi    hen leng, Lisi *jiu* hui qu mai shu **ma**?  
           if        weather very cold    Lisi *jiu* can go buy book Inter.  
           is it the case that if it is cold, Lisi will go and buy books?

One way to disambiguate a question marked by *ma* is to use its verbal counterpart, called the A-not-A question. Its scope is necessarily small: it does not appear in sentence final position. Within one given clause, it shows up at the level of the predicative phrase, on the first verb. The first verb of the subordinate clause of (01) is the stative verb *leng* 'be cold'. If it is questioned as in (02) below, the sentence is ungrammatical.

- (02)    \*ruguo tianqi    **leng bu leng**, Lisi *jiu* hui qu mai shu?  
           if        weather cold-Neg.-cold    Lisi *jiu* can go buy book

The ill-formedness of (02) is expected: in general, a conditional clause is presupposed, hence it cannot fall under the scope of negation or question. So, we predict that only the (first) verb of the predicate of the *matrix* clause of (01) should allow questioning. Thus (03) should be acceptable. But, contrary to expectation, it is not.

- (03)    \*ruguo tianqi    hen leng, Lisi *jiu* **hui bu hui** qu mai shu?  
           if        weather very cold    Lisi *jiu* can-Neg.-can go buy book

Only (04), which is identical to (03), except for the presence of *jiu* is well-formed. (05) is also acceptable, but it is not identical in meaning with (04). (04) is more frequent than (05).

- (04)    ruguo tianqi    hen leng, Lisi **Ø hui bu hui** qu mai shu?  
           if        weather very cold    Lisi **Ø** can-Neg.-can go buy book  
           if it is cold, will Lisi go and buy books?
- (05)    ruguo tianqi    hen leng, Lisi **hui bu hui jiu** qu mai shu?  
           if        weather very cold    Lisi can-Neg.-can *jiu* go buy book  
           if it is cold, would Lisi go and buy books?

I will turn to the semantic explanation of the deletion or the unexpected positioning of *jiu* later on. For the time being, I will compare the questioning of conditionals with *jiu* (as in (01)) with the questioning of conditionals with *cai* (as in (06)).

- (06)    ni    zhiyou caiqu zhei ge banfa    *cai* neng xue-hao    **ma**?  
       //    you only    adopt this Cl. method    *cai* can    study-well Inter.  
       (01)    is it the case that only if you adopt this method you will succeed in learning?

In (01), as in (06), the question particle *ma* appears in sentence final position. Contrary to (04)-(05), the verb in the matrix clause cannot be questioned: (07)-(09) are not acceptable.

- (07)    \*ni zhiyou caiqu zhei ge banfa    **cai neng bu neng** xue-hao?  
       // (03)    you only    adopt this Cl. method    *cai* can-Neg.-can    study-well?

<sup>12</sup> Gasde and Paul's analysis (ibid.:273) predicts this sole possibility.

(08) \*ni zhiyou caiqu zhei ge banfa Ø **neng bu neng** xue-hao?  
 // (04) you only adopt this Cl. method Ø can-Neg.-can study-well?

(09) \*ni zhiyou caiqu zhei ge banfa **neng bu neng cai** xue-hao?  
 // (05) you only adopt this Cl. method can-Neg.-can *cai* study-well?

The predicate of the subordinate clause *caiqu* 'adopt' is the only one left and available for questioning. But again, such a question is not acceptable.

(10) \*ni zhiyou **caiqu bu caiqu** zhei ge banfa cai neng xue-hao?  
 you only adopt -Neg.-adopt this Cl. method *cai* can study-well

Only (11) below is acceptable. In its matrix clause, the question operator is marked not by the verb contained in the clause, but by an 'extra' verb, the copula *shi* 'be'. The presence of *shi* is to indicate that there is a presupposition<sup>13</sup>. Notice that contrary to (04) above where the connector *jiu* was absent, the connector *cai* is present.

(11) ni **shi bu shi** zhiyou caiqu zhei ge banfa **cai** neng xuehao?  
 you be-Neg.-be only adopt this Cl. method *cai* can study-well  
 is it the case that only if you adopt this method you will succeed in learning?

To sum up, conditionals marked by *jiu* and those marked by *cai* behave differently under questioning. Both the question marker and their positions vary. The (auxiliary) verb in the matrix clause is questioned in (04), while *jiu* is deleted. The copula is questioned in the subordinate clause of (11), while the connector *cai* remains present. Hence we can conclude that conditionals containing *jiu* and those containing *cai* cannot appear under the same (functional) projection. A *jiu* conditional is indeed a topic: it cannot be questioned. On the contrary, a *cai* conditional is not a topic: it does carry new information and falls in the scope of the question operator.

Two other tests prove that conditionals with *jiu* and those with *cai* play different informational roles. First, a topical subordinate can take a resumptive anaphoric pronoun<sup>14</sup> *zhe* 'this' or *na* 'that', as in (13) below. A focal subordinate cannot, cf. (15)

(12) ruguo ni zai tuici, jiu bu heshi le  
 if you again decline *jiu* Neg. adequate F.P.  
 if you refuse again, it won't be accepted

(13) ruguo ni zai tuici, **zhe/na** jiu bu heshi le  
 if you again decline this/that *jiu* Neg. adequate F.P.  
 if you refuse again, it won't be accepted

(14) yaoshi duo lianxi cai tigao chengji  
 if much practice *cai* increase grade  
 it's only if you practice a lot that you will have better grades

<sup>13</sup> For the use of meta-linguistic *shi*, see Teng (1974).

<sup>14</sup> The presence of a resumptive clitic is symptomatic of topicality (=old information), cf. Cinque (1990:63, 180).

- (15) \*yaoshi duo lianxi, **zhe/na** cai tigao chengji  
if much practice this/that *cai* increase grade

Second, a conditional clause cannot be clefted, while a causal one can. Moreover, as clefting is available when the adjunct precedes the matrix, as in (17), this proves that a causal proposition cannot occupy a functional projection labelled Topic Phrase. By definition, a topic cannot be clefted.

- (16) \*shi zhiyou tianqi hen hao, wo cai lai de  
be only weather very good I *cai* arrive *de*
- (17) shi yinwei tianqi hen hao wo cai lai de  
be because weather very good I *cai* come *de*  
I came only because the weather is good

In passing, let's try to explain the difference between (04) and (05) above. *Jiu* marks both a logical and an anaphoric relationship between the antecedent/protasis (noted *p*) and the consequent/apodosis clause (noted *q*). In (04) we are dealing with a question about a conditional. Such types of conditionals are close to what has been called conditional speech act clauses in the literature<sup>15</sup>. *Jiu* is kept in (05) because what is questioned by the speaker is precisely the relationship between *p* and *q*, which *jiu* stands for : it is a conditional question. Moreover in (05) because *jiu* is in the scope of a modality, it indicates the distance that the speaker takes with respect to the utterance of such a relation. The opposition between *will* and *would* in the English translations of (04) and (05) tries to render the meaning difference between these two examples.

We now turn to simple sentences containing a quantified object.

## 2.2. Simple sentences

In simple sentences containing a quantified object both *jiu* and *cai* function as restrictive operators, which alternate with *zhi* 'only', cf. (20)<sup>16</sup>. (19) is the interrogative counterpart of (18), which does not contain any restrictive operator.

- (18) ta **he-le** yi bei jiu  
he drink-Suf. one Cl. alcohol  
he drank a glass of wine
- (19) ta **you mei you** he yi bei jiu?  
he have-Neg-have drink one Cl. alcohol  
has he drunk a glass of wine?
- (20) ta jiu/cai/zhi **he-le** yi bei jiu  
he only/only/only drink-Suf. one Cl. alcohol  
he only drank a glass of wine

<sup>15</sup> See Eifring (1995).

The formal approach used by Jayez and Rossari (1999) to account for the connectors *dans ce cas* and *donc* in French seems very promising. Intuitively, it can be extended to *jiu* whose meaning is closer to *dans ce cas* than to *donc*.

<sup>16</sup> For the meaning differences between these restrictors, see Paris (1981).

If the informational role carried by the predicative phrase of (18) and (20) were identical, we would expect that from the interrogative example (19) one would form (21), because both examples are built on the same pattern. But (21) is ill-formed. As was the case above for focal subordinate clauses – see (11) – only a *shi bu shi* question is allowed. What is questioned is not the (lexical) verb *he* 'drink', but the quantity represented by the numeral expression *yi bei* 'one glass', cf. (22).

- (21) \**ta jiu/cai/zhi you mei you he yi bei jiu?*  
 he only/only/only have-Neg-have drink one Cl. alcohol
- (22) *ta shi bu shi jiu/cai/zhi he-le yi bei jiu?*  
 he be-Neg-be only/only/only drink-Suf. one Cl. alcohol  
 has he only drunk one glass of wine?

Examples (23)-(26) below are very revealing. They are simple sentences which contain the same markers as necessary conditionals – *zhiyou* and *cai* in (06) or (11) above – and pattern exactly like them. An object which normally occupies the postverbal position as in (18)-(20) and (22) must appear preverbally or sentence initially when it is focussed by *zhiyou* 'only', cf. (23). In this case, it has wide scope.

- (23) *zhiyou bai jiu ta (cai) bu he*  
 only white wine he (cai) Neg. drink  
 it's only white wine that he does not drink

As the object is the carrier of new information, it is this very constituent – and only it – which is in the scope of the question. Hence the verb cannot display such a property : this is why (24)-(25) are ill-formed.

- (24) \**zhiyou bai jiu ta (cai) he bu he?*  
 only white wine he (cai) drink-Neg.-drink
- (25) \**zhiyou bai jiu ta shi bu shi (cai) bu he?*  
 only white wine he be-Neg-be (cai) Neg. drink
- (26) *shi bu shi zhiyou bai jiu ta (cai) bu he?*  
 // be-Neg-be only white wine he (cai) Neg. drink  
 (11) is it only white wine that he does not drink?

What (26) above illustrates is that (i) *cai* has inverse scope: it does not precede the element it modifies and that (ii) surface word order cannot be equated with informational order. The quantified phrase *zhiyou bai jiu* 'only white wine' does appear in sentence initial position, but it does **not** display topical properties. Quite to the contrary, the place of *shi bu shi* shows that it is in the scope of the question, hence it bears the new information.

In the following I will show how the pairing of question/answer in simple sentences tells us directly where the new information is located in a Chinese sentence.

### 3. Constituent questions and word order

As is very well-known, in Chinese, bare NPs which function as time adverbials can occupy different pre-verbal positions. For example, in (01)-(03) *zuotian* 'yesterday' occupies the sentence initial, the post-manner adverbial and the post-subject positions, respectively.

(01) **zuotian** ni guyi da-le ta  
yesterday you on purpose beat-Suf. he  
yesterday you beat him on purpose

(02) ni guyi **zuotian** da-le ta  
you on purpose yesterday beat-Suf. he  
you beat him on purpose yesterday

(03) ni **zuotian** guyi da-le ta  
you yesterday on purpose beat-Suf. he  
yesterday you beat him on purpose

But corresponding to these three orders, only one question, i.e. (06), is well formed. (04) and (05) are not acceptable.

(04) \***shenme shihou** ni guyi da-le ta?  
when? you on purpose beat-Suf. he

(05) \*ni guyi **shenme shihou** da-le ta?  
you on purpose when? beat-Suf. he

(06) ni **shenme shihou** guyi da-le ta?  
// you when? on purpose beat-Suf. he

(03) when did you beat him on purpose?

What (06) shows is where the base position for time constituents lies. The other orders show different informational and scopal properties. When it is in sentence initial/topical position, a constituent cannot be questioned, as evidenced by (04) (and (10) below). As is expected cross-linguistically, the scope of time constituents is wider than that of manner adverbials. (05) is ill-formed because *guyi* 'on purpose' has wider scope than *shenme shihou* 'when?'.<sup>17</sup>

Locative phrases show even more clearly than time phrases how scopal and syntactical properties<sup>17</sup> interrelate. When it is in sentence initial/topical position, a locative phrase cannot be questioned, as is evidenced by the contrast in grammaticality between (09) and (10). The unacceptability of (10) is parallel to that of (04). (09)-(10) are the interrogative counterparts of (07)-(08), which are individual-level/generic predications.

(07) ta zai gongyuan-li pao-Ø bu  
he at park-in run-Ø step  
he runs in the park

<sup>17</sup> Following Maienborn (1999), the locative phrase (LocP) in (07) can be labelled 'situation-external modifier', and the Loc P in (08) 'frame-setting modifier'.

- (08) zai gongyuan-li ta pao-Ø bu  
 at park-in he run-Ø step  
 in the park he runs
- (09) ta **zai bu zai** gongyuan-li pao-Ø bu?  
 he at-Neg-at park-in run-Ø step  
 does he run the park?
- (10) \***zai bu zai** gongyuan-li ta pao bu?  
 at-Neg-at park-in he run-Ø step

The answers to (09) are (11) or (12).

- (11) shi, zai gongyuan-li pao bu  
 be at park-in run-Ø step  
 yes, he runs in the park
- (12) (shi, ta) zai  
 (be he) at  
 yes, he does

(13) below is the interrogative stage-level/episodic counterpart of (07) above: the verb is suffixed either by *-le* or by *-guo*, and (14) is its interrogative counterpart. The contrast between (15) and (16) shows that the locative in (14) cannot stand for new information, because (16) cannot stand as an answer to (14). What constitutes the domain of new information is the time reference, as evidenced by (15), where the answer simply consists in a suffixed verb.

- (13) ta zai gongyuan-li pao-**le/-guo** bu  
 he at park-in run-Suf. step  
 he has run in the park
- (14) ta zai gongyuan-li pao-**le/-guo** bu ma?  
 he at park-in run-Suf. step Inter.  
 has he (ever) run in the park?
- (15) pao-le/guo  
 run-Suf.  
 yes, he has
- (16) \*zai (gongyuan-li )  
 at (park-in)

From the pair (07)/(13) we can conclude that in the absence of specific information about time reference, locative reference takes over as a candidate for new information. In the presence of time/aspectual reference, locative reference cannot take over. This is why (16) cannot constitute an answer to (13). The relative informational weight of time and locative constituents is illustrated in the contrast between (17) and (18). Time phrases must precede locative phrases. Such an order is a direct reflection of their relative scope.

(17) ni xianzai zai zhe-li xiuxi  
 you now at here rest  
 now you can rest here

(18) \*ni zai zhe-li xianzai xiuxi  
 you at here now rest

The difference between (07) and (13), which apparently simply lies in the absence vs. presence of an aspectual suffix, is more complex than it seems. I have tried to show that the locative constituent *zai gongyuan li* 'in the park' plays a different informational role<sup>18</sup> in both examples. The iconic and the (isomorphic) scope principles that I have presented above in part I cannot account for such a difference.

## Conclusion

In this paper I have tried to show that the interrogative surface word order of sentences, whether they are simple or complex sentences, is a direct reflection of where the new information lies in Chinese. I have mentioned three types of interrogation: interrogative words, verb-negation-verb questioning and *shi*-negation-*shi* questioning.

A difference between 'neutral' sentences and sentences containing a presupposition has stood out. In the presence of a presupposition, such as is the case with simple sentences containing focussing/restrictive adverbs or with complex sentences indicating a necessary condition, I have tried to show that the locus of new information does not stand where either formal or functional linguists have predicted it to appear. First, the fact that the question is asked with *shi-bu-shi* tells us that the sentence contains a presupposition. Second, the position of *shi-bu-shi* tells us on which constituent(s) it is associated. I have tried to establish a relationship between the surface word order of certain constituents, their scopal and informational properties.

Isomorphism in Chinese – whether it be a direct relation between world events and linguistic word order, or between word order and informational structure or between word order and the interpretation of scope – may not be as transparent as thought of until now.

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<sup>18</sup> The relationship between the interpretation of locative phrases and aspectual markers is transparent in Korean. Korean has an indefinite aspectual marker *un il i ss* (noted Exp<sub>1</sub>) and a definite aspectual marker *ess-ess* (noted Exp<sub>2</sub>). In a *yes/no* question containing a locative phrase, the locative phrase is interpreted as the focus of the question only when the event is presupposed to have happened, i.e. when the experiential marker is definite. When the experiential marker is indefinite, the question is neutral. See Kim (1998) whose examples I have borrowed. (i) and (ii) correspond to Kim's (57a) and (ii) to a variant of (58), respectively.

- (i) ne New York ey ka-n il i iss-ni?  
 you New York to go Exp<sub>1</sub> Inter.  
 have you been to New York? (neutral question)
- (ii) ne (cinan cwu) New York ey ka-ss-ess-ni?  
 you (last week) New York to go Exp<sub>2</sub> Inter.  
 did you go to New York [or some place else](last week)?

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